

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTORS: Andrew D. Dingsor and Craig A. Lanzen

APPLICATION NO. 09/803,825

FILED: March 12, 2001

CASE NO. RSW920000169US1

Examiner: J. Swearingen

Group Art Unit: 2145

Confirmation No. 1006

TITLE: IMPROVED NETWORK ADDRESS  
TRANSLATION AND PORT MAPPING

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**FILED ELECTRONICALLY ON December 15, 2006**

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MAIL STOP AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Sir:

In response to the final Office Action of September 15, 2006 regarding the above-identified application, Applicants hereby requests review of the final rejection. No amendments are being filed with this Request.

This Request is being filed with a Notice of Appeal.

The review is requested for the reasons stated on the attached sheets.

**REASONS FOR REQUEST**

Applicants have filed, concurrently with this Request, a Notice of Appeal in the above-identified application. Applicants further request a pre-appeal review of the Examiner's rejection of the above-identified application as Applicants believe the Examiner has failed to identify the presence of essential elements required to establish a *prima facie* rejection.

As set forth in the MPEP:

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. MPEP §2131 citing *Verdegaal Bros. v. Union Oil Company of California*, 814 F.2d 628, 631, 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987).

MPEP 2131

**The Examiner Has Not Established a *Prima Facie* Case of Anticipation**

As outlined in the Reply filed September 5, 2006, differences between the present claimed invention and the prior art of record have been discussed extensively. However, Applicants believe that the Examiner has failed to meet all necessary requirements for making a *prima facie* anticipation rejection.

The present invention addresses the standard problem of "bottlenecking" in a Network Address Translation (NAT) system. Typically, traffic is slowed at a NAT machine due to the large volume of traffic being process by the NAT machine. The present claimed invention first performs an initial packet address translation at the NAT machine, and then performs additional packet address translation at the individual servers, thereby allowing a direct connection between the clients and servers after the initial NAT translation. By utilizing this configuration, a large volume of traffic at the

NAT machine is offloaded to individual servers after the initial address translation. Claim 1 specifically recites:

preparing, by said one of the plurality of servers, a response packet responsive to the client packet;

performing, by said one of the plurality of servers, a translation operation on the response packet to produce a translated response packet; and

transmitting the translated response packet directly to the client from said one of the plurality of servers, thereby bypassing the NAT machine. (lines 5-10)

In these steps, the forwarded packet is processed at the receiving server. The receiving server creates a response packet and translates this packet. This translation step includes including a unique address for the receiving server as opposed to the generic system address. By performing this further translation step, the receiving server and client can now communicate directly without requiring further communication with the NAT machine. Each additional independent claim (Claims 9 and 15) mentions a form of these limitations. This configuration is neither taught nor suggested by the prior art of record.

In contrast, Borella never reaches a point where communication is solely between a client and one of a plurality of servers, bypassing the NAT machine as is specifically claimed in the present invention. Borella discloses a system that is entirely dependent on NAT machine communication and port allocation. Borella Figure 9 and the accompanying descriptive text (Col. 8, line 63 through Col. 9, line 16) illustrate the initial address translation. Here, it is shown that each packet needing address translation requires a server to request a globally unique port from a NAT machine (in the example described by Borella, router 26 functions as the NAT machine). In Borella, the NAT machine pre-allocates a set of globally unique port numbers for each client. As each packet is sent out from a client

to a destination outside the LAN, the server handling the transmission must request a new globally unique port from the NAT machine for addressing a response to the initially sent packets.

The Examiner asserts that Col. 12, lines 16-27 teaches the claimed limitation of “transmitting the translated response packet directly to the client from said one of the plurality of servers, thereby bypassing the NAT machine” (Claim 1, lines 9-10). However, the citation quoted by the Examiner as teaching this limitation teaches the opposite of the Examiner’s assertion. The citation specifically recites “Router 26 also routes data packets from the second external computer network back to a network device on the first computer network using the globally unique port in the combination network address” (Col. 12, lines 16-19). While it is no longer performing the NAT process, the router (or the NAT machine of Borella) is still forwarding the packets. The present claimed invention bypasses the NAT machine altogether, establishing a direct connection between a server and a client. Figure 2 of the present invention clearly shows the connection established between the server and the client while completely bypassing the NAT machine. Borella, as shown in the above citation, never bypasses the NAT machine as the route of Borella is always used to direct traffic flow. Further, Figure 1 of Borella shows a topographical view of the system taught by Borella. There is no means of communication between a server and a client without using Router 26 for packet switching.

The Examiner has failed to show the necessary teaching in the prior art to anticipate the present invention. Each of the pending claims specifically recites the novel and non-obvious arrangement set forth above. The cited prior art fails to teach these novel features. Without such a teaching, it is inappropriate to reject the claims as being anticipated by the cited prior art.

Conclusion

The present invention is not taught or suggested by the prior art. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims. An early Notice of Allowance is earnestly solicited. The Commissioner is hereby authorized to charge any fees associated with this communication to Deposit Account No. 09-0461.

Respectfully submitted,



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Date

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